

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- 1-26. (Cancelled).
27. (Currently Amended) The ~~battery~~ method of claim [[15]] 34, wherein the air recovery battery is a cylindrical battery.
28. (Currently Amended) The ~~battery~~ method of claim 27, wherein the air recovery battery is a AAA battery.
29. (Currently Amended) The ~~battery~~ method of claim 27, wherein the air recovery battery is a AA battery.
30. (Currently Amended) The ~~battery~~ method of claim 27, wherein the air recovery battery is a C battery.
31. (Currently Amended) The ~~battery~~ method of claim 27, wherein the air recovery battery is a D battery.
32. (Currently Amended) The ~~battery~~ method of claim 15, wherein the air recovery battery is a prismatic battery.
33. (Currently Amended) The ~~battery~~ method of claim 15, wherein the air recovery battery is a racetrack battery.
34. (Currently Amended) A method for making an air recovery battery, the method comprising:

(a) combining MnO_2 , carbon, ~~[[and]]~~ a binder, and a solvent to form a cathode paste, wherein the MnO_2 consists essentially of electrochemically synthesized MnO_2 , and wherein the cathode paste contains at least about 60% by total weight MnO_2 , wherein the total weight is calculated as the combined weight of the manganese dioxide, the carbon, the binder, and any other additives that optionally are included in the paste;

(b) spreading the cathode paste on a current collector and removing the solvent to form a cathode;

(c) inserting the cathode into a container, wherein the container includes an air access port and air entering the air access port can contact the cathode;

(d) inserting anode material into the container, wherein the anode material comprises zinc; and

(e) sealing the container to provide the air recovery battery,
wherein the cathode is the only cathode included in the air recovery battery.

35. (Currently Amended) The method of claim 34, wherein the cathode paste contains at least about 70% by total weight MnO_2 .

36. (Currently Amended) The method of claim 35, wherein the cathode paste contains at least about 80% by total weight MnO_2 .

37. (Currently Amended) The method of claim 36, wherein the cathode paste contains at least about 85% by total weight MnO_2 .

38. (Currently Amended) The method of claim 37, wherein the cathode paste contains at least about 90% by total weight MnO_2 .

39. (Original) A method for making a rechargeable cathode, the method comprising:
(a) combining a catalyst, carbon particles, and a solvent to form a mixture;
(b) combining the mixture with a hydrophobic polymer at a temperature below about 10°C to form a paste;

(c) stirring the paste at a temperature below about 10°C; and
(d) warming the paste to at least about 20°C and mixing the paste at this temperature.

40. (Original) The method of claim 39, wherein step (c) comprises stirring the paste under vacuum.

41. (Original) The method of claim 39, wherein step (d) comprises stirring the paste under vacuum.

42. (Original) The method of claim 39, wherein step (c) comprises stirring the paste at a speed of about 15 rpm.

43. (Original) The method of claim 39, wherein step (d) comprises stirring the paste at a speed of about 15 rpm.